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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,012	05/30/2000	Ming U. Chang	PD-200031	9856

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HUGHES ELECTRONICS CORPORATION
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EXAMINER	
CRAVER, CHARLES R	

ART UNIT	PAPER NUMBER
2682	7

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/584,012	Applicant(s) Chang et al
	Examiner Charles Craver	Art Unit 2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-18 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-18 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on May 30, 2000 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3, 5,
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4, 6-9, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt et al, US Pat 5,940,774 in view of Kao, US Pat 6,175,737.

Claim 1: Schmidt discloses a mobile communications system comprising

a plurality of individually transponding nodes (FIG 2, BS1, BS2 etc),

a central processing hub (CC) in communication with each node such that a signal processed at the hub is communicated to a plurality of the nodes with compensating time delays (col 4 line 65-col 5 line 29), and

a plurality of mobile stations for receiving signals from a number of nodes simultaneously (col 1 line 65-col 2 line 14, col 5 lines 6-11).

Schmidt fails to disclose that the hub radiates the signals to the nodes, that is, that the connection between the hub and the nodes is wireless.

Kao discloses the utility of connecting a BSC 8 such as that taught by Schmidt to a BTS 7 using a wireless connection (col 4 line 45-col 5 line 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmidt in such a way, as it would overcome conventional cellular system limitations, as suggested by Kao, col 4 lines 40-42.

Claim 4: both Schmidt and Kao disclose a BTS, which inherently includes a transmitter tower. **Claim 6:** the combined invention of Schmidt in view of Kao would provide proper-phase communication for the intended user, and the user's timeslot would inherently appear out-of-phase to other users not in the exact same location. **Claim 7:** the combined invention of Schmidt in view of Kao includes reverse-link communications (col 2 lines 5-14), in which case the signals would be re-radiated back to the BSC.

Claims 8 and 9: claims 8 and 9 recite the inherent method performed by the system of claims 6 and 7, and as such is rejected for the same reasoning set forth above. **Claim 14:** please see the rejection of claim 4 above.

Claim 16: Schmidt discloses a mobile communications system comprising

a plurality of individually transponding nodes (FIG 2, BS1, BS2 etc),

a central processing hub (CC) in communication with each node such that a signal processed at the hub is communicated to a plurality of the nodes with compensating time delays (col 4 line 65-col 5 line 29), and

a plurality of mobile stations for receiving signals from a number of nodes simultaneously (col 1 line 65-col 2 line 14, col 5 lines 6-11).

Schmidt further discloses Base Stations, which inherently includes a transmitter tower.

Schmidt fails to disclose that the hub radiates the signals to the nodes, that is, that the connection between the hub and the nodes is wireless.

Kao discloses the utility of connecting a BSC 8 such as that taught by Schmidt to a BTS 7 using a wireless connection (col 4 line 45-col 5 line 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmidt in such a way, as it would overcome conventional cellular system limitations, as suggested by Kao, col 4 lines 40-42.

Further, the combined invention of Schmidt in view of Kao would provide proper-phase communication for the intended user, and the user's timeslot would inherently appear out-of-phase to other users not in the exact same location. **Claim 17:** since Schmidt discloses regular Base Stations, such are read by the examiner as being all of the same type.

3. Claims 2, 3, 5, 10-13, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt in view of Kao and Ibanez-Meier et al, US Pat 5,949,766.

Claims 2, 3 and 5, which depend on claim 1: while disclosing applicant's invention of claim 1 above, Schmidt in view of Kao fails to disclose a satellite, high-altitude platform or balloon.

Ibanez-Meier discloses that terrestrial systems such as that taught by the combined invention of Schmidt in view of Kao can also apply to a satellite system in some situations (col 1

lines 22-57), and further benefit from the use of balloons or airplanes/airships (high altitude platforms) as well (col 3 line 66-col 4 line 40, col 6 line 66-col 7 line 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add such a feature to Schmidt in view of Kao, as Ibanez-Meier discloses that such a modification can be cost-effective at providing wide system coverage (col 2 lines 27-40, col 3 line 66-col 4 line 6).

Claims 10-13 and 15, which depend on claim 8: please see the rejection of claims 2, 3 and 5 above.

Claim 18, which depends on claim 16: while disclosing applicant's invention of claim 1 above, Schmidt in view of Kao fails to disclose a satellite, high-altitude platform or balloon wherein more than one type including a ground station may be used.

Ibanez-Meier discloses that terrestrial systems such as that taught by the combined invention of Schmidt in view of Kao can also apply to a satellite system in some situations (col 1 lines 22-57), and further benefit from the use of balloons or airplanes/airships (high altitude platforms) as well (col 3 line 66-col 4 line 40, col 6 line 66-col 7 line 18) combined with satellites and ground stations.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add such a feature to Schmidt in view of Kao, as Ibanez-Meier discloses that such a modification can be cost-effective at providing wide system coverage (col 2 lines 27-40, col 3 line 66-col 4 line 6).

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 2, 6-10 and 15-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of U.S. Patent No. 6,295,440. Although the conflicting claims are not identical, they are not patentably distinct from each other because the processing would inherently use a time delay in order to provide the

simultaneous signals to the user equipment, which would include the coherent detection at both ends.

6. Claims 3-5, 11-14 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of U.S. Patent No. 6,295,440 in view of Ibanez-Meier et al.

Claims 3-5, which depend on claim 1: Ibanez-Meier discloses that terrestrial systems such as that taught by the combined invention of Schmidt in view of Kao can also apply to a satellite system in some situations (col 1 lines 22-57), and further benefit from the use of balloons or airplanes/airships (high altitude platforms) as well (col 3 line 66-col 4 line 40, col 6 line 66-col 7 line 18) combined with satellites and ground stations. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add such a feature, as Ibanez-Meier discloses that such a modification can be cost-effective at providing wide system coverage (col 2 lines 27-40, col 3 line 66-col 4 line 6).

Claims 11-14, which depend on claim 8: please see the rejection of claims 3-5 above.

Claim 18, which depends on claim 16: please see the rejection of claims 3-5 above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hibbs et al discusses a high-altitude transponding platform.

Asokan and Galyas discuss means for time-delaying multiple signals.

8.**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 872-9314 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, sixth floor (receptionist).

9.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Craver whose telephone number is (703) 305-3965.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Urban, can be reached on (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

12-3-03
CHARLES CRAVER
PATENT EXAMINER

C. Craver
December 3, 2003